IN THE CLAIMS

Claims 1 - 164 (canceled)

165. (once amended) Apparatus for conveying ice comprising ~~in the form of a plurality of pieces each having physical characteristics amenable to transport by negative air pressure pneumatic conveyance, from at least one source of said ice to any of a plurality of remote locations under said negative air pressure, which comprises~~:

a plurality of receptors for receiving ~~said~~ ice, with at least one receptor at each of a plurality of ~~said~~ remote locations;

a hollow elongated ice conduit having an initial conduit portion from said source of ice to at least one intermediate division point from which a plurality of branch conduits extend, said initial conduit and said branch conduits providing an ice communication connection between said source of ice and said plurality of receptors;

a diverter in said conduit at each said intermediate division point for direction of ice traversing said conduit from said initial conduit to any of said branch conduits; and

a vacuum pump in fluid communication through a vacuum line with each said receptor for withdrawing air from said conduits and creating a vacuum comprising said negative air pressure in said conduits, said negative air pressure causing said ice to traverse said conduit from said source through said diverter to a selected one of said plurality of receptors.

166. (previously presented) Apparatus as in Claim 165 wherein each said diverter further comprises a shifter for aligning said diverter with any selected one of said plurality of branch conduits at said intermediate division point.

167. (once amended) Apparatus as in Claim 165 wherein said plurality of conduits is in a range from two to four ~~there are two, three or four alternate branch ice conveyance~~

~~conduits.~~

168. (previously presented) Apparatus as in Claim 165 further comprising said vacuum line also having at least one coincident intermediate division point from which an equal plurality of branch vacuum lines extend, each such branch vacuum line forming a pair with a corresponding branch ice conduit and extending to and connecting with a corresponding one of said plurality of receptors, and each said diverter at each said intermediate division point also simultaneously directing said vacuum into and through that branch vacuum line paired with any selected one of said plurality of branch ice conduits.

169. (once amended) Apparatus as in Claim 168 wherein said diverter further comprises a shifter for ~~motivating~~ routing ice conveyance and direction of vacuum to alternate pairs of corresponding branch ice conveyance conduits and branch vacuum lines.

170. (previously presented) Apparatus as in Claim 165 wherein said at least one of said receptors therein comprises an accumulator with an inlet and an outlet and has an openable gate for release therefrom at said remote location of accumulated pieces of ice conveyed thereto from said source.

171. (previously presented) Apparatus as in Claim 170 further comprising said gate being hingedly affixed to said accumulator and biasing means for biasing said openable gate into close contact with said accumulator and closing said outlet.

172. (previously presented) Apparatus as in Claim 171 wherein said outlet of said accumulator is defined by an end of a peripheral wall of said accumulator surrounding said outlet, said end of said wall comprising an interior side of said wall and an exterior side of said wall joined by a width of said wall, said edge of said outlet comprising a junction line

of said width and said interior side, said configuration comprises a chamfer across at least a portion of said width and terminating at an apex of an acute angle at said edge.

173. (once amended) Apparatus as in Claim 165 further wherein said vacuum line connects in fluid communication into said branch conduit at a first point of connection upstream of a second point of connection of said branch conduit into a respective receptor, and wherein said vacuum line is spaced apart from said second point of connection by an interval not greater than a distance that said ice pieces can traverse under momentum imparted to them by their prior conveyance by said negative air pressure, such that diversion of at least a portion of conveying force of said negative air pressure at said point of connection does not prevent said ice pieces from continuing to traverse entirely through said initial branch conduits and into said receptor.

174. (once amended) Apparatus as in Claim 173 further comprising said first point of connection of said hollow conduit and said vacuum line being located in an expanded internal breadth portion of said hollow conduit, such that in said expanded internal breadth portion, said velocity of air moving under said negative air pressure is diminished relative to said velocity of said air in an immediately upstream portion of said hollow conduit.

175. (previously presented) Apparatus as in Claim 173 further comprising said vacuum line and said hollow conduit at said first point of connection being connected at an angle that precludes diversion of said ice pieces from said hollow conduit into said vacuum line.

176. (once amended) Apparatus as in Claim 173 further comprising said vacuum line at said first point of connection line with said hollow conduit wherein said vacuum line has ~~being of~~ a maximum inside width less than minimum breadth of any of said ice pieces,

such that diversion of said ice pieces from said hollow conduit into said vacuum line is precluded.

177. (previously presented) Apparatus as in Claim 165 further wherein said receptor is disposed adjacent to an inlet of a subsequent conduit leading to a subsequent accumulator at another remote location, and said pieces of ice released from said receptor are deposited into said inlet for conveyance through said subsequent conduit to said subsequent accumulator at said another remote location.

178. (previously presented) Apparatus as in Claim 177 further comprising another vacuum line in fluid communication with said subsequent conduit for moving said ice through said subsequent conduit to said subsequent accumulator at said second remote location.

179. (previously presented) Apparatus as in Claim 165 further comprising a collector into which ice pieces delivered from said source of ice are received, said collector having a first opening into said first conduit, and further comprising unbridging means associated with said collector for presenting said released ice pieces individually and unbridged to said first opening, whereby said ice pieces pass through said first opening into said first conduit.

180. (previously presented) Apparatus as in Claim 179 wherein said unbridging means also motivates said ice pieces through said opening into said first conduit.

181. (previously presented) Apparatus as in Claim 165 further comprising sensor means for detecting the presence or absence of ice in said receptor.

182. (previously presented) Apparatus as in Claim 181 wherein said sensor means

periodically measures
a parameter value which is dependent upon said quantity of ice and from which said quantity of said ice can be determined.

183. (previously presented) Apparatus as in Claim 165 wherein at least one of said branch conduits has
a further intermediate division point with a further diverter from which a further plurality of branch conduits extend, each further branch conduit leading directly to a further plurality of receptors and providing an ice communication connection between said source of ice and by means of said further diverter to each receptor in said further plurality of receptors.

184. (once amended) Apparatus as in Claim 165 further comprising cleaner introducing means for introducing a liquid cleaner into said ice conduit and conveying said liquid cleaner through said ice conduit under said negative air pressure, whereby passage of said cleaner through said ice conduit cleans contaminants from the interior of said conduit, and upon discharge of said cleaner at an outlet of said conduit, said cleaner removes from said conduit said contaminants entrained in said cleaner.

185. (previously presented) Apparatus as in Claim 165 wherein at least one receptor at a remote location comprises an air lock device which is connected to said ice conduit on an upstream side and which has an inlet for pressurized air from a source thereof on a downstream side and another conduit extending from said downstream side for passage of said pressurized air, such that ice entering said air lock device from said ice conduit passes through said air lock device and is propelled through said another conduit at high velocity by said pressurized air.

186. (previously presented) Apparatus as in Claim 185 wherein that portion of said

another conduit downstream of said airlock comprises flexible tubing with an outlet at an end distal from said air lock device and further comprising directing means for moving said outlet of said flexible tubing such that ice passing through said flexible tubing at high velocity can be projected from said outlet in various directions and to various distances.

187. (previously presented) Apparatus as in Claim 165 wherein that portion of said another conduit downstream of said air lock comprises flexible tubing with an outlet at an end distal from said air lock device and further comprising directing means for manual, mechanical, pneumatic or electrical positioning of said outlet of said flexible tubing.

188. (previously presented) Apparatus as in Claim 165 wherein said source of ice comprises a plurality of individual sources of ice and said initial conduit is connected through an initial diverter to a plurality of source conduits each having one of said individual sources of ice at the end distal from said initial diverter, with vacuum being drawn in each source conduit by said vacuum pump, such that said ice can be directed from any of said individual ice sources into said initial conduit for conveyance to said receptors,

189. (previously presented) Apparatus as in Claim 165 wherein said receptor comprises an ice dispensing device.

190. (previously presented) Apparatus as in Claim 189 further comprising said ice dispensing device having dispensing means for dispensing individual quantities of said pieces of ice to an operator of said dispensing device upon demand of said operator.

191. (previously presented) Apparatus as in Claim 190 further comprising said ice dispensing device also comprising means for dispensing individual quantities of liquid

beverages to said operator of said dispensing device upon demand of said operator.

192. (once amended) A process for conveying ice comprising ~~in the form of a plurality of pieces each having physical characteristics amenable to transport by negative air pressure pneumatic conveyance, from at least one source of said ice to any of a plurality of remote locations under said negative air pressure, which comprises~~:

a. disposing a plurality of receptors for receiving ~~said~~ ice at a plurality of ~~said~~ remote locations, with at least one receptor of said plurality disposed at each of said remote locations;

b. providing a hollow elongated ice conduit having an initial conduit portion from said source of ice to an intermediate division point from which a plurality of branch conduits extend, and directing transport of said ice through said initial conduit and said branch conduits between said source of ice and said plurality of receptors;

c. disposing a diverter in said conduit at said intermediate diversion point and controlling said diverter to direct ice traversing said conduit from said initial conduit from said initial conduit to any one of said branch conduits; and

d. providing a vacuum pump in fluid communication through a vacuum line with each said receptor for withdrawing air from said conduits and creating a vacuum comprising said negative air pressure in said conduits, said negative air pressure providing means for transport of said ice through said conduit from said source through said diverter to a selected one of said plurality of receptors.

193. (previously presented) A process as in Claim 192 further comprising forming at least one serial connection between two sequentially aligned conduits through a diverter and disposing one of said two sequentially aligned conduits as one of a plurality of conduits which can be alternately connected to the other of said two sequentially aligned conduits through said diverter.

194. (previously presented) A process as in Claim 192 comprising conveying said ice and vacuum through a plurality of paired, serially connected conduits to reach said receptor.

195. (previously presented) A process as in Claim 194 comprising forming at least one serial connection between two sequentially aligned paired ice and vacuum conduits through a diverter.

196. (previously presented) A process as in Claim 195 further comprising disposing one of said two sequentially aligned paired ice and vacuum conduits as one of a plurality of paired ice and vacuum conduits which can be alternately connected to the other of said two sequentially aligned paired ice and vacuum conduits through said diverter.

197. (once amended) A process as in Claim 192 ~~197~~ further comprising providing in at least one said receptor an openable gate causing pieces of ice conveyed into said receptor through said conduit by said vacuum to come to rest bearing upon said gate, said accumulator at said remote location; said gate being biased against opening; and thereafter releasing of accumulated pieces of ice conveyed from said source from said receptor at said remote location by counteracting or eliminating of said gate.

198. (once amended) A process as in Claim 192 wherein said receptor comprises an air lock device and said process further comprises providing for said air lock device an air communication connection to a source of pressurized air on a downstream side thereof and ice and air communication with another conduit extending from said downstream side and having an outlet end distal to said air lock device, for passage of said pressurized air, and causing ice to enter said air lock device from said ice conduit and pass therethrough to encounter pressurized air moving at high velocity on said downstream side ~~said~~ and

become entrained in said pressurized air moving at high velocity and be propelled through said another conduit and thereby be dispersed at high speed from said outlet end of said another conduit.

199. (previously presented) A process as in Claim 192 further comprising:

a. connecting said vacuum line in fluid communication into each said branch conduit at a first point of connection upstream of a second point of connection of said ice conduit into said receptor, and spaced apart from said second point of connection by an interval not greater than a distance that said ice pieces can traverse under momentum imparted to them by their prior conveyance through said conduit by said negative air pressure; and

b. conveying said ice pieces under that amount of force of said negative air pressure at said first point of connection sufficient to cause said ice pieces to continue to traverse entirely through said initial conduit, said diverter and said branch conduit and into said receptor without diversion of any ice pieces into said first vacuum line.

200. (previously presented) A process as in Claim 199 further comprising causing velocity of air at said first point of connection and moving under said negative air pressure to be diminished relative to velocity of said air in an immediately upstream portion of said ice conduit by disposing said first point of connection in an expanded internal breadth portion of said first hollow conduit.

201. (previously presented) A process as in Claim 200 further comprising forming said expanded internal breadth portion of said hollow conduit with a length sufficiently great that one portion of any liquid being conveyed through said conduit will be diverted into said first vacuum line and another portion of said liquid will continue to traverse through said ice conduit and into said receptor.